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Forest
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Shasta-Trinity
National Forests

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Reply To: 3420

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Date: September 27, 1991

Subject: Biological Evaluation of Port-Orford-cedar Root Disease
Infestation near Camp Six, Gasquet RD (FPM Report N91-14)

To: Forest Supervisor, Six Rivers NF

On October 9, 1991, I met with Ken Wells, TMA, Gasquet Ranger District, Mel Greenup, Interregional POC Program Manager, Siskiyou NF, and John Kliejunas, Supervisory Plant Pathologist, RO, to examine an area along County Road 411 (T. 17 N., R. 3 E., section 31) on the Gasquet RD to determine the feasibility of eradicating a small infestation of Phytophthora lateralis, cause of Port-Orford-cedar root disease, at the headwaters of Coon Creek.

The site is occupied by knobcone pine, Port-Orford-cedar, Douglas-fir, and western white pine. Most of the trees are pole-size and smaller, with a few merchantable individuals. Other vegetation includes bear grass, prostrate juniper, azalea, and other grasses. Soils appear to be ultramafic, possibly serpentinized.

POC root disease is causing tree mortality in an area less than 1 acre in size. It appears to have originated from road maintenance operations. Bough cutting of POC has taken place in the stand and may have helped to spread the fungus. There is no distinct drainage in the area, but rather there appears to be considerable subsurface drainage.

Ken has proposed a suppression action for this area. His proposal has two objectives. First, it would attempt to prevent further downslope spread of the fungus into several miles of uninfested Coon Creek. Second, it would hopefully eradicate the fungus from the site and prevent its spread from this site to other areas along the county road.

The proposed action is to fell and lop most of the stems in the infested area plus a buffer area. This would be burned this fall prior to any significant rainfall in order to achieve a hard, hot fire. In addition, the county would be asked to make alterations to the road that would direct the drainage into sumps away from the infested area. The total area of treatment is 2 to 3 acres.

On September 11 we collected soil samples from eight permanently marked locations to sample for P. lateralis. Each plot was located one foot downslope from an infected tree and was marked with a metal road stake. Samples were collected from the top 6 inches of soil below the duff layer at four locations in the cardinal directions 3 feet from the stake. These samples were carried back to Redding to determine if the fungus is present prior to the burn. Following the fire, the same locations will be sampled to determine if the

fungus survived. Also, just prior to the fire, soil inoculated with P. lateralis will be placed on the site to provide additional information on fungus survival. Additional monitoring will include the establishment of plots in healthy POC downslope from the treatment area to determine if there is any spread of the disease.

In addition to the eradication effort, alterations to the road drainage pattern need to be completed to reduce the amount of surface flow of water from the road across the site. Discussions indicated that a berm along the road edge and sump holes to collect the runoff would be appropriate and adequate to reduce the surface flow. The District will pursue this with the county to see if it is feasible and to determine if they are willing to do it. When this is done, the equipment should operate on the clean side of the road first, then operate on the infested side. Equipment should be washed prior to leaving the site to prevent spread of the fungus.

FPM will pursue the soil sampling and analysis and the preparation of inoculum in anticipation of the project being undertaken this fall. We will establish downslope permanent plots for monitoring efficacy. The District will be responsible for NEPA and other documentation and the actual implementation of the project.

If there are any questions about this evaluation or study, please contact me at the Shasta-Trinity SO (916-246-5101).

/S/ Gregg DeNitto

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